1646

ENTERED



RAW SEQUENCE LISTING

DATE: 01/21/2004

PATENT APPLICATION: US/10/643,627

1 <110> APPLICANT: Sundelin, Johan

TIME: 14:30:11

Input Set: N:\Crf3\RULE60\10643627.RAW.txt Output Set: N:\CRF4\01212004\J643627.raw

```
Scarborough, Robert M.
 3 <120> TITLE OF INVENTION: Recombinant C140 Receptor, Its Agonists and Antagonists, and
        Nucleic Acids Encoding the Receptor
 5 <130> FILE REFERENCE: 44481-5006-09-US
 6 <140> CURRENT APPLICATION NUMBER: 10/643,627
 7 <141> CURRENT FILING DATE: 2003-08-19
8 <150> PRIOR APPLICATION NUMBER: US/10/127,691
 9 <151> PRIOR FILING DATE: 2002-04-23
10 <150> PRIOR APPLICATION NUMBER: US 08/097,938
11 <151> PRIOR FILING DATE: 1993-07-26
12 <150> PRIOR APPLICATION NUMBER: US 08/390,301
13 <151> PRIOR FILING DATE: 1995-01-25
14 <150> PRIOR APPLICATION NUMBER: US 08/474,414
15 <151> PRIOR FILING DATE: 1995-06-07
16 <160> NUMBER OF SEQ ID NOS: 63
17 <170> SOFTWARE: PatentIn Ver. 2.1
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 1475
21 <212> TYPE: DNA
22 <213> ORGANISM: Mus musculus
23 <220> FEATURE:
24 <221> NAME/KEY: CDS
25 <222> LOCATION: (232)..(1416)
26 <223> OTHER INFORMATION: C140 receptor, genomic DNA and deduced protein
28 <400> SEQUENCE: 1
29
           ccctgtcagt cttaagattc tagaagtcgc tgtcctatac ggaacccaaa actctcactg 60
           ttaatgaaat accattgtcg gggcgaagat gtagctcagt ggtaaaatac ttgccagcac 120
30
31
           acacaaqaat taqacttcaa ccqtcaccaa ctqccctqtq taqqacqqtc qqtcactqaa 180
32
           agagaatatt gtctgcaata ctctaatgac atctgtctgt gttcatctga a atg ttc
                                                                     Met Phe
33
34
                                                                              285
35
           cat tta aaa cac agc agc ctt act gtt gga cca ttt atc tca gta atg
36
           His Leu Lys His Ser Ser Leu Thr Val Gly Pro Phe Ile Ser Val Met
37
                                        10
                                                                              333
38
           att ctg ctc cgc ttt ctt tgt aca gga cgc aac aac agt aaa gga aga
39
           Ile Leu Leu Arg Phe Leu Cys Thr Gly Arg Asn Asn Ser Lys Gly Arg
40
                                    25
                                                         30
41
           agt ctt att ggc aga tta gaa acc cag cct cca atc act ggg aaa ggg
                                                                              381
42
           Ser Leu Ile Gly Arg Leu Glu Thr Gln Pro Pro Ile Thr Gly Lys Gly
43
            35
                                                     45
                                                                              429
           gtt ccg gta gaa cca ggc ttt tcc atc gat gag ttc tct gcg tcc atc
```

RAW SEQUENCE LISTING

DATE: 01/21/2004 TIME: 14:30:11

PATENT APPLICATION: US/10/643,627 TIME:

Input Set : N:\Crf3\RULE60\10643627.RAW.txt
Output Set: N:\CRF4\01212004\J643627.raw

45 46	Val	Pro	Val	Glu	Pro 55	Gly	Phe	Ser	Ile	Asp 60	Glu	Phe	Ser	Ala	Ser 65	Ile	
47	ctc	acc	aaa	aaα	cta	acc	acq	atc	t.t.t	ctt	cca	atc	atc	tac	att	att	477
48				_		Thr											
49	υCα		O ± y	70	шси	1111		• • • •	75	200	1.10			80		110	
	~+~		~+~		~~+	++~	~~~	-~+	_	~~~	ata	~~~	ata		2+0	++0	525
50						ttg											323
51	vaı	Phe		тте	GTÀ	Leu	Pro		Asn	GTĀ	мет	Ата		Trp	тте	Pne	
52			85					90					95				
53			_	_	_	aag				_				-	-		573
54	Leu	Phe	Arg	Thr	Lys	Lys	Lys	His	Pro	Ala	Val	Ile	Tyr	Met	Ala	Asn	
55		100					105					110					
56	ctg	gcc	ttg	gcc	gac	ctc	ctc	tct	gtc	atc	tgg	ttc	ccc	ctg	aag	atc	621
57	Leu	Āla	Leu	Āla	Asp	Leu	Leu	Ser	Val	Ile	Trp	Phe	Pro	Leu	Lys	Ile	
58	115				-	120					125				-	130	
59		tac	cac	cta	cat	ggc	aac	aac	taa	atic	tac	aaa	gag	acc	cta	tac	669
60						Gly											
61	JCI	1 y 1	5	шса	135		11011	71011	115	140	- 7 -	O L y	0 0		145	O J D	
62	224	~+ ~	ata	a + ÷		+++	++0	t a t	aat		at a	+ -+	+ ~ ~	tac	-	ctc	717
	_					ttt					_		-				111.
63	ьуѕ	vai	ьeu		GTĀ	Phe	File	тут	_	ASII	Mec	TÀT	Cys		116	neu	
64				150					155					160	-	•	7.65
65						agc											765
66	Phe	Met		Cys	Leu	Ser	Val		Arg	Tyr	Trp	Val		Val	Asn	Pro	
67			165					170					175				
68	_					aag	_	-			_	_					813
69	Met	Gly	His	Pro	Arg	Lys	Lys	Ala	Asn	Ile	Ala	Val	Gly	Val	Ser	Leu	
70		180					185					190					
71	gca	atc	tgg	ctc	ctg	att	ttt	ctg	gtc	acc	atc	cct	ttg	tat	gtc	atg	861
72	Ala	Ile	Trp	Leu	Leu	Ile	Phe	Leu	Val	Thr	Ile	Pro	Leu	Tyr	Val	Met	
73	195					200					205					210	
74	aag	cag	acc	atc	tac	att	cca	gca	ttg	aac	atc	acc	acc	tgt	cac	gat	909
75						Ile											
76	-				215					220				_	225	-	
77	ata	cta	cct	gag	gag	gta	tta	ata	aaa	gac	atσ	ttc	aat	tac	ttc	ctc	957
78						Val											
79				230					235	1-				240			
80	tca	cta	acc		aaa	gtc	ttc	cta		cca	acc	ctc	ctt		aca	tct	1005
81		_	-			Val		_		_	_				-		1000
82	Ser	neu	245	116	СТУ	vaı	rne	250	r 11C	110	пτα	шец	255	1111	ита	Der	
	~~~	+		at a	2+~	2+0	224		a+ a	000	+ a+	+ a+		2+4	ant.	<b>~</b> ~ ~	1053
83						atc											1000
84	Ата		vaı	Leu	мет	Ile		Thr	Leu	Arg	ser		АТа	мес	Asp	Giu	
85		260					265					270					1101
86						agg											1101
87		Ser	Glu	Lys	Lys	Arg	Gln	Arg	Ala	He		Leu	Ile	Ile	Thr		
88	275					280					285					290	
89						atc											1149
90	Leu	Ala•	Met	Tyr	Phe	Ile	Cys	Phe	Ala	Pro	Ser	Asn	Leu	Leu		Val	
91					295					300					305		
92	gtg	cat	tat	ttc	cta	atc	aaa	acc	cag	agg	cag	agc	cac	gtc	tac	gcc	1197
93	Val	His	Tyr	Phe	Leu	Ile	Lys	Thr	Gln	Arg	Gln	Ser	His	Val	Tyr	Ala	

RAW SEQUENCE LISTING DATE: 01/21/2004 PATENT APPLICATION: US/10/643,627 TIME: 14:30:11

Input Set : N:\Crf3\RULE60\10643627.RAW.txt
Output Set: N:\CRF4\01212004\J643627.raw

94					310					315					320			
95		ctc	tac	ctt	gtc	qcc	ctc	tgc	ctg	tcg	acc	ctc	aac	agc	tgc	ata	gac	1245
96													Asn					
97			_	325				-4	330					335	_		•	
98		CCC			tat	tac	+++	atc		aaa	gat	ttc	agg	αat	cac	acc	aga	1293
99													Arg .					1233
100		110	340		ı yı	ıyı	LIIC	345		цуз	1150	1110	350	М	1125	1114	1119	
101		220			ata	+ ~ ~					+	at a		000	· a+c		2+0	1341
						-	_	_	-	_				_			atc	1241
102				Leu	ьeu	Cys	_		val	LArg	Int			ALG	Met	. G11.	lle	
103		355					360					365					370	1 200
104																	tca	1389
105		Ser	Leu	Ser	Ser		-	s Phe	e Sei	r Arg	_		. GTA	Ser	Tyı		Ser	
106						375					380					385	)	
107		_			_	_					_	igctg	rtac	ctga	ıggat	gt		1436
108		Ser	Ser	Thr	Ser	Val	Lys	Thr	: Sei	r Tyr	:			,				
109					390					395	Ò							
110		caa	gcct	gct	tgat	gatg	at g	gatga	atgat	g gt	gtgt	gtg						1475
112	<210>	SEQ I	D NO	: 2														
113	<211>	LENGT	H: 3	95														
114	<212>	TYPE:	PRT			•												
115	<213>	ORGAN	IISM:	Mus	mus	culu	s											•
116	<400>	SEQUE	NCE:	2														
117					Leu	Lvs	His	Ser	Sei	Lev	Thr	. Val	Glv	Pro	Phe	e Ile	Ser	
118		1				5					10					15		
119				Tle	Leu	Leu	Arc	ı Phe	- Lei	ı Cvs			Ara	Asr	n Asr	n Ser	Lys	
120					20	200		,		25			9		30		-1-	
121		Glv	, Ara	Ser		Tle	Glv	, Arc	r I.e.ı			Gln	Pro	Pro		_	Gly	
122		GIY	ALG	35		116	O L y	, HI	4(		1 1111	. 0111	1110	45		, 1111	. Ory	
123		Tvo				17-1	Clu	Dro			Sor	- T10	, Acn			Sor	Ala	
124		цуз	50 50		110	vai	GIU	55	_	7 1116	. 561		60		1 1110	5 Der	. Ald	
125		C ~ *			Th~	C1.	. T			o The	. 775.1	Dho			. 17-1	1 17-1	Тих	
		5e1 65		ьеu	1111	дту	ъуs 70		1 1111	. 1111	. val	. File		FIC	) val	L vai	. Tyr 80	
126				77-7	DL -	17-1			. T	- D				Mat	. 7.7.	. T		
127		TTE	тте	vaı	Pne			; GTZ	/ те	1 Pro			, сту	мес	. Alc		Trp	
128				-	ъ.	85			-	-	90		20.7	77.7	<b>T</b> 1	95		
129		TTE	Phe	Leu		_	Thr	: гуз	з гуз	-		Pro	ята	vai			Met	
130			_	_	100			_	_	105				_	110		_	
131		Ala	Asn			Leu	Ala	a Asp			ı Ser	Val	ile	-		e Pro	Leu	
132				115					120				_	125				
133		Lys			Tyr	His	Leu			/ Asn	Asn	ı Trp			Gl	y Glu	Ala	
134			130					135					140					
135		Leu	Cys	Lys	Val	Leu	Ile	e Gly	/ Phe	e Phe	yr:	Gly	' Asn	Met	Туз	c Cys	Ser	
136		145	)				150	)				155	,				160	
137		Ile	Leu	Phe	Met	Thr	Cys	Let	ı Ser	. Val	Gln	Arg	Tyr	Trp	Val	l Ile	val	
138						165					170	)				175	<u>,</u>	
139		Asn	Pro	Met	Gly	His	Pro	Arc	J Lys	Lys	Ala	Asn	Ile	Ala	. Val	l Gly	, Val	~
140					180			_	-	185					190			
141		Ser	Leu	Ala	Ile	Trp	Leu	Let	ı Ile	e Phe	Leu	. Val	Thr	Ile	Pro	Lev	Tyr	
142				195		•			200					205			-	
143		Val	Met			Thr	Ile	Tyr			Ala	Leu	Asn			Thr	Cys	
				-													_	

RAW SEQUENCE LISTING DATE: 01/21/2004 PATENT APPLICATION: US/10/643,627 TIME: 14:30:11

Input Set : N:\Crf3\RULE60\10643627.RAW.txt
Output Set: N:\CRF4\01212004\J643627.raw

		210					215					220					
144 145	uic		Val	Lou	Dro	Glu		V = 1	Lou	V = 1	G1 v		Mat	Dha	Aen	Tur	
	225	-	vaı	пец	110	230	OIU	VOI	пец	VUL	235	тор	1100	LIIC	11311	240	
146			Ser	Ton	ת 1 ה		C1 ++	นาไ	Dho	Lou		Dro	ΛΙລ	Lou	Lou		
147	rile	ьец	ser	ьеи	245	TTE	GTA	vaı	rne	250	rne	rio	Ala	ьeu	255	1111	
148	7.10	C	7.1	т		T 011	Mot	т1.	T		T 011	7 ~ ~	C0.70	Cor		Mot	
149	Ala	ser	Ala	-	Val	ьеu	мес	тте	_	THE	ьeu	Arg	Ser	270	нта	мес	
150	7	C1	113 =	260	C1	T	T	7) 20 00	265	7\ ~~ ~	חות	Tla	7\ ~~ ~		т1.	Tlo	
151	Asp	GIU	His	Ser	Glu	гаг	гàг	_	GIN	Arg	Ala	тте	_	ьeu	тте	ше	
152	<b>m</b> 1		275	<b>7</b> . 7		m	D.I	280	~	D1	<b>7</b> . 7	Б.	285	70	<b>T</b> .	<b>.</b>	
153	Thr		Leu	Ата	Met	Tyr		тте	Cys	Pne	Ата		Ser	Asn	ьeu	Leu	
154	_	290			_	-1	295		_	m)	~ 1	300	<b>6</b> 3	_		** 7	
155			Val	His	Tyr		Leu	тте	гуs	Tnr		Arg	Gin	Ser	HIS		
156	305		_		_	310		_	_	_	315	m1	_	_	_	320	
157	Tyr	Ala	Leu	Tyr		Val	Ala	Leu	Cys		Ser	Thr	Leu	Asn		Cys	
158		_			325	_	_			330	_	_		_	335		
159	Ile	Asp	Pro		Val	Tyr	Tyr	Phe		Ser	Lys	Asp	Phe			Hıs	
160				340					345	_				350			
161	Ala	Arg	Asn	Ala	Leu	Leu	Cys	_	Ser	Val	Arg	Thr		Asn	Arg	Met	
162			355					360					365				
163	Gln	Ile	Ser	Leu	Ser	Ser	Asn	Lys	Phe	Ser	Arg		Ser	Gly	Ser	Tyr	
164		370					375					380					
165	Ser	Ser	Ser	Ser	Thr		Val	Lys	Thr	Ser	Tyr						
166	385					390					395						
	<210> SEQ I																
169	<211> LENGT	H: 1	255														
170	~ 212 \ PVDE.	ענאכו															
1/0	<212> TYPE:	DIVA															
	<212> 11FE: <213> ORGAN			sar	piens	3				•							
171		ISM:		sap	piens	3							•				
171 172	<213> ORGAN	ISM: RE:	Homo	sar	piens	5							•				
171 172 173 174	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT	ISM: RE: KEY: ION:	Homo CDS (56)	(:	1249)	)				•			•				
171 172 173 174	<213> ORGAN <220> FEATU <221> NAME/	ISM: RE: KEY: ION:	Homo CDS (56)	(:	1249)	)	ecept	cor,	geno	omic	DNA	and	dedi	uced	prot	ein	
171 172 173 174	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT	ISM: RE: KEY: ION: INF	Homo CDS (56)	(:	1249)	)	ecept	cor,	geno	omic	DNA	and	dedi	uced	prot	cein	
171 172 173 174 175 176	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT <223> OTHER	ISM: RE: KEY: ION: INFO	Homo CDS (56) ORMA	(:	1249)	)	ecept	cor,	geno	omic	DNA	and	dedi	ıced	prot	cein	
171 172 173 174 175 176	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT <223> OTHER seque <400> SEQUE	ISM: RE: KEY: ION: INF nces NCE:	Homo CDS (56) ORMA	)(: FION:	1249; : C14	) 10 re	_									ein a atg	58
171 172 173 174 175 176	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT <223> OTHER seque <400> SEQUE	ISM: RE: KEY: ION: INF nces NCE:	Homo CDS (56) ORMA	)(: FION:	1249; : C14	) 10 re	_										58
171 172 173 174 175 176 177	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT <223> OTHER seque <400> SEQUE	ISM: RE: KEY: ION: INF nces NCE:	Homo CDS (56) ORMA	)(: FION:	1249; : C14	) 10 re	_									a atg	58
171 172 173 174 175 176 177 178	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT <223> OTHER seque <400> SEQUE cgc	ISM: RE: KEY: ION: INFO nces NCE: tcca	Homo CDS (56) ORMA	)(I	1249; : C14	) 40 re	cgaga	accct	- gto	ctcai	taaa	tta	aaaa	atg a	aataa	a atg Met 1	58
171 172 173 174 175 176 177 178 179	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT <223> OTHER seque <400> SEQUE cgc	ISM: RE: KEY: ION: INFOnces NCE: tcca	Homo CDS (56) ORMA: 3	)(i	1249; Cla gtgad	) 40 re ca go gaa	egaga caa	accet	gto agt	ctca! gtt	taaa act	tta: gct	aaaa gaa	atg a	aataa	a atg Met 1 att	
171 172 173 174 175 176 177 178 179 180	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT <223> OTHER seque <400> SEQUE cgc	ISM: RE: KEY: ION: INFOnces NCE: tcca	Homo (56) ORMA: 3 ggc (	)(i	1249; Cla gtgad	) 40 re ca go gaa	egaga caa	accet	gto agt	ctca! gtt	taaa act	tta: gct	aaaa gaa	atg a	aataa	a atg Met 1 att	106
171 172 173 174 175 176 177 178 179 180 181	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT <223> OTHER seque <400> SEQUE cgc  aat Asn	ISM: RE: KEY: ION: INFO nces NCE: tcca gta Val	Homo (56) ORMA: 3 ggc (	tca Ser	1249 : Cla gtgao ttt Phe	) 40 re ca go gaa Glu	cgaga caa Gln	accct acc Thr	agt Ser 10	gtt Val	taaa act Thr	ttaa gct Ala	gaa Glu	atg a aca Thr 15	aataa ttt. Phe	a atg Met 1 att Ile	
171 172 173 174 175 176 177 178 179 180 181 182 183	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT <223> OTHER seque <400> SEQUE cgc  aat Asn	ISM: RE: KEY: ION: INFO nces NCE: tccao gta Val	Homo CDS (56) ORMA: 3 ggc ( ctt Leu	tca Ser acc	1249; Clastgac ttt Phe	gaa Glu	caa Gln ttc	acc Thr	agt Ser 10	gtt Val tgt	act Thr	ttaa gct Ala gga	gaa Glu acc	atg a aca Thr 15 aat	ttt. Phe	a atg Met 1 att Ile	106
171 172 173 174 175 176 177 178 179 180 181 182 183 184	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT <223> OTHER seque <400> SEQUE cgc  aat Asn	ISM: RE: KEY: ION: INFO nces NCE: tccao gta Val	Homo CDS (56) ORMA: 3 ggc ( ctt Leu atg	tca Ser acc	1249; Clastgac ttt Phe	gaa Glu	caa Gln ttc	acc Thr	agt Ser 10	gtt Val tgt	act Thr	ttaa gct Ala gga	gaa Glu acc	atg a aca Thr 15 aat	ttt. Phe	a atg Met 1 att Ile	106
171 172 173 174 175 176 177 178 179 180 181 182 183 184 185	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT <223> OTHER seque <400> SEQUE cgc  aat Asn  tct Ser	ISM: RE: KEY: ION: INFO nces NCE: tcca  gta Val  gta Val	CDS (56) ORMA: 3 ggc ( ctt Leu atg Met	tca Ser acc	ttt Phe ctt Leu	gaa Glu gtc Val	caa Gln ttc Phe	acc Thr ctt Leu 25	agt Ser 10 tct Ser	gtt Val tgt Cys	act Thr aca Thr	gct Ala gga Gly	gaa Glu acc Thr	atg a aca Thr 15 aat Asn	ttt. Phe aga Arg	Met 1 att Ile tcc Ser	106
171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT <223> OTHER seque <400> SEQUE cgc  aat Asn  tct Ser	ISM: RE: KEY: ION: INFO nces NCE: tcca  gta Val gta Val aaa	CDS (56) ORMA: 3 ggc ( ctt Leu atg Met 20	tca Ser 5 acc Thr	ttt Phe ctt Leu	gaa Glu gtc Val	caa Gln ttc Phe	acc Thr ctt Leu 25 ggt	agt Ser 10 tct Ser aag	gtt Val tgt Cys gtt	act Thr aca Thr	gct Ala gga Gly	gaa Glu acc Thr 30	atg a aca Thr 15 aat Asn tcc	ttt Phe aga Arg	a atg Met 1 att Ile tcc Ser	106 154
171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT <223> OTHER seque <400> SEQUE cgc  aat Asn  tct Ser	ISM: RE: KEY: ION: INFO nces NCE: tcca  gta Val gta Val aaa	CDS (56) ORMA:  3 ggc ( ctt Leu atg Met 20 gga	tca Ser 5 acc Thr	ttt Phe ctt Leu	gaa Glu gtc Val	caa Gln ttc Phe	acc Thr ctt Leu 25 ggt	agt Ser 10 tct Ser aag	gtt Val tgt Cys gtt	act Thr aca Thr	gct Ala gga Gly	gaa Glu acc Thr 30	atg a aca Thr 15 aat Asn tcc	ttt Phe aga Arg	a atg Met 1 att Ile tcc Ser	106 154
171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT <223> OTHER seque <400> SEQUE cgc  aat Asn  tct Ser  tct Ser	ISM: RE: KEY: ION: INFO nces NCE: tcca  gta Val gta Val aaa Lys 35	CDS (56) ORMA:  3 ggc o ctt Leu atg Met 20 gga Gly	tca Ser 5 acc Thr aga	ttt Phe ctt Leu agc Ser	gaa Glu gtc Val ctt Leu	caa Gln ttc Phe att Ile 40	accor Thr ctt Leu 25 ggt Gly	agt Ser 10 tct Ser aag	gtt Val tgt Cys gtt Val	act Thr aca Thr gat Asp	gct Ala gga Gly ggc Gly 45	gaa Glu acc Thr 30 aca Thr	atg a aca Thr 15 aat Asn tcc Ser	ttt Phe aga Arg cac	a atg Met 1 att Ile tcc Ser gtc Val	106 154
171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT <223> OTHER seque <400> SEQUE cgc  aat Asn  tct Ser  tct Ser act	ISM: RE: KEY: ION: INFO nces NCE: tcca  yal gta yal aaa Lys gga	CDS (56) ORMA:  3 ggc o ctt Leu atg Met 20 gga Gly aaa	tca Ser 5 acc Thr aga Arg	ttt Phe ctt Leu agc ser	gaa Glu gtc Val ctt Leu	cgaga caa Gln ttc Phe att Ile 40 gtt	acc Thr ctt Leu 25 ggt Gly	agt Ser 10 tct Ser aag Lys	gtt Val tgt Cys gtt Val gtc	act Thr aca Thr gat Asp	gct Ala gga Gly ggc Gly 45	gaa Glu acc Thr 30 aca Thr	atg a aca Thr 15 aat Asn tcc Ser	ttt Phe aga Arg cac His	a atg Met 1 att Ile tcc Ser gtc Val	106 154 202
171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT <223> OTHER seque <400> SEQUE cgc  aat Asn  tct Ser  tct Ser  act Thr	ISM: RE: KEY: ION: INFO nces NCE: tcca  yal gta yal aaa Lys gga	CDS (56) ORMA:  3 ggc o ctt Leu atg Met 20 gga Gly	tca Ser 5 acc Thr aga Arg	ttt Phe ctt Leu agc ser	gaa Glu gtc Val ctt Leu	cgaga caa Gln ttc Phe att Ile 40 gtt	acc Thr ctt Leu 25 ggt Gly	agt Ser 10 tct Ser aag Lys	gtt Val tgt Cys gtt Val gtc	act Thr aca Thr gat Asp	gct Ala gga Gly ggc Gly 45	gaa Glu acc Thr 30 aca Thr	atg a aca Thr 15 aat Asn tcc Ser	ttt Phe aga Arg cac His	a atg Met 1 att Ile tcc Ser gtc Val	106 154 202
171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189	<213> ORGAN <220> FEATU <221> NAME/ <222> LOCAT <223> OTHER seque <400> SEQUE cgc  aat Asn tct Ser tct Ser act Thr 50	ISM: RE: KEY: ION: INFO nces NCE: tcca  yal  gta Val  gta Lys gga Gly	CDS (56) ORMA:  3 ggc o ctt Leu atg Met 20 gga Gly aaa	tca Ser 5 acc Thr aga Arg	ttt Phe ctt Leu agc Ser gtt Val	gaa Glu gtc Val ctt Leu aca Thr	cgaga Caa Gln ttc Phe att Ile 40 gtt Val	acc Thr ctt Leu 25 ggt Gly gaa Glu	agt Ser 10 tct Ser aag Lys aca	gtt Val tgt Cys gtt Val gtc Val	act Thr aca Thr gat Asp ttt Phe 60	gct Ala gga Gly ggc Gly 45 tct Ser	gaa Glu acc Thr 30 aca Thr gtg Val	atg a aca Thr 15 aat Asn tcc Ser gat Asp	ttt Phe aga Arg cac His gag	Met 1 att Ile tcc Ser gtc Val ttt Phe 65	106 154 202

## RAW SEQUENCE LISTING DATE: 01/21/2004 PATENT APPLICATION: US/10/643,627 TIME: 14:30:11

Input Set: N:\Crf3\RULE60\10643627.RAW.txt
Output Set: N:\CRF4\01212004\J643627.raw

194	Ser	Ala	Ser	Val		Thr	Gly	Lys	Leu		Thr	Val	Phe	Leu		Ile	
195					70					75					80		246
196						ttt										_	346
197	Val	Tyr	Thr		Val	Phe	Val	Val	_	Leu	Pro	Ser	Asn	_	Met	Ala	
198				85					90					95			204
199	-		_			ttc	-		-	_	_			-			394
200	Leu	Trp		Phe	Leu	Phe	Arg		ьуs	ьуs	гàг	His		Ата	Val	He	
201			100					105					110				4.40
202						gcc											442
203	Tyr		Ата	Asn	Leu	Ala		Ата	Asp	Leu	ьeu		vaı	тте	Trp	Pne	
204		115					120					125					400
205						tat											490
206		Leu	гàг	тте	Ата	Tyr	HIS	TTE	HIS	GTÀ		Asn	Trp	11e	Tyr		
207	130					135	-4-4-	_ 4_ 4_			140		_~~			145	E 20
208	-	_		_		gtg									_		538
209	GIU	Ala	ьеи	Cys		Val	ьeu	тте	сту	155	Pne	ıyı	<b>G</b> т у	ASII	160	ıyı	
210	+~+	+	a++	at a	150	a + ~	200	+~~	a+ a		~+ ~	000	200	+ - +		at a	586
211 212	_					atg Met		_		-		_				_	300
213	СУЗ	ser	116	165	rne	Mec	1111	Cys	170	ser	vaı	GIII	Ary	175	пр	vai	
213	2+0	at a	330		2+4	ggg	C 2 C	+00		224	224	aca	220		acc	2++	634
214					-	Gly				_	_	_			-		034
216	116	Vai	180	110	1100	ОТУ	1113	185	лгу	цуз	دوب	111.0	190	110	11.1.α	110	
217	aac	atc		cta	aca	ata	taa		cta	att	cta	cta		acc	atc	cct	682
218				_	_	Ile		_	_		-	_	_				002
219	O L y	195	001	пси	1114	110	200	БСС	ьси	110	пса	205	• • • •	1111	110		
220	tta		at c	ata	ааσ	cag		atc	ttc	att	cct		ct.a	aac	atc	acq	730
221	-		_		_	Gln						_	_			_	
222	210	-1-			1-	215					220					225	
223		tat	cat	αat	att	ttg	cct	aaa	caq	ctc	tta	ata	gga	gac	atq	ttc	778
224		_		-	-	Leu			_		_	_	_				
225		•		-	230			•		235			-	-	240		
226	aat	tac	ttc	ctc	tct	ctg	gcc	att	ggg	gtc	ttt	ctg	ttc	cca	gcc	ttc	826
227						Leu											
228				245					250					255			
229	ctc	aca	gcc	tct	gcc	tat	gtg	ctg	atg	atc	aga	atg	ctg	cga	tct	tct	874
230	Leu	Thr	Ala	Ser	Ala	Tyr	Val	Leu	Met	Ile	Arg	Met	Leu	Arg	Ser	Ser	
231			260					265					270				
232	gcc	atg	gat	gaa	aac	tca	gag	aag	aaa	agg	aag	agg	gcc	atc	aaa	ctc	922
233	Ala	Met	Asp	Glu	Asn	Ser	Glu	Lys	Lys	Arg	Ļys	Arg	Ala	Ile	Lys	Leu	
234		275					280					285					
235	att	gtc	act	gtc	ctg	gcc	atg	tac	ctg	atc	tgc	ttc	act	cct	agt	aac	970
236	Ile	Val	Thr	Val	Leu	Ala	Met	Tyr	Leu	Ile	Cys	Phe	Thr	Pro	Ser		
237	290					295					300					305	
238						cat											1018
239	Leu	Leu	Leu	Val		His	Tyr	Phe	Leu		Lys	Ser	Gln	Gly		Ser	
240					310					315					320		
241						tac											1066
242	His	Val	Tyr	Ala	Leu	Tyr	Ile	Val	Ala	Leu	Cys	Leu	Ser	Thr	Leu	Asn	

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/643,627
DATE: 01/21/2004
TIME: 14:30:12

Input Set: N:\Crf3\RULE60\10643627.RAW.txt
Output Set: N:\CRF4\01212004\J643627.raw

#### Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

```
Seq#:9; Xaa Pos. 1
Seq#:10; Xaa Pos. 1
Seq#:11; Xaa Pos. 1,2
Seq#:12; Xaa Pos. 1,2
Seq#:13; Xaa Pos. 1
Seq#:14; Xaa Pos. 1
Seq#:15; Xaa Pos. 1
Seq#:16; Xaa Pos. 1
Seq#:17; Xaa Pos. 1
Seq#:18; Xaa Pos. 1
Seq#:50; Xaa Pos. 2
Seg#:51; Xaa Pos. 2
Seq#:52; Xaa Pos. 1
Seq#:53; Xaa Pos. 1
Seq#:56; Xaa Pos. 2
Seq#:57; Xaa Pos. 2
Seq#:58; Xaa Pos. 1
Seq#:59; Xaa Pos. 1
```

#### Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 3

#### VERIFICATION SUMMARY

DATE: 01/21/2004 TIME: 14:30:12 PATENT APPLICATION: US/10/643,627

Input Set: N:\Crf3\RULE60\10643627.RAW.txt Output Set: N:\CRF4\01212004\J643627.raw

```
L:513 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:528 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:544 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
L:560 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:575 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:590 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
L:605 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:620 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:635 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:650 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:1008 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0
L:1023 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:0
L:1039 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:0
L:1055 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53 after pos.:0
L:1092 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:0
L:1107 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:0
L:1123 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:0
L:1139 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:0
```